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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/535,678

06/05/2006

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8146

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EXAMINER

LAVARIAS, ARNEL C

ART UNIT

PAPER NUMBER

2872

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/535,678	<b>Applicant(s)</b> STEVEN ET AL.	
	<b>Examiner</b> Arnel C. Lavarias	<b>Art Unit</b> 2872	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 2/11/09, 6/5/06, 5/19/05.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 14-27 is/are pending in the application.
- 4a) Of the above claim(s) 4-6 and 25-27 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 14-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 May 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/5/06</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Amendment***

1. The cancellation of Claims 7-13 in the first preliminary amendment filed 5/19/05 is acknowledged and accepted.
2. The addition of Claims 14-27 in the second preliminary amendment filed 5/19/05 is acknowledged and accepted.

### ***Election/Restrictions***

3. Applicant's election without traverse of Group I (Claims 2-3, 21-24) in the reply filed on 2/11/09 is acknowledged.
4. Claims 4-6, 25-27 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 2/11/09.

### ***Priority***

5. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Drawings***

6. The originally filed drawings were received on 5/19/05. These drawings are acceptable.

### ***Specification***

7. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. *The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided.* The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

8. The abstract of the disclosure is objected to because of the following informalities:

Abstract, line 4- 'comprises' should read 'includes'

Abstract, line 5- 'means' should read 'device'.

Correction is required. See MPEP § 608.01(b).

9. The disclosure is objected to because of the following informalities:

Page 1, line 28- insert period after 'strain'

Page 3, line 15- 'Figure1' should read 'Figure 1'.

Appropriate correction is required.

### ***Claim Objections***

10. Claims 1-3, 14-24 are objected to because of the following informalities:

Claim 1 recites the limitation "the distance" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Art Unit: 2872

Claim 1 recites the limitation "the magnified object" in line 4. There is insufficient antecedent basis for this limitation in the claim.

Regarding Claim 1, the phrase "can be" renders the claim problematic because it is not certain whether the limitations following the phrase are part of the claimed invention.

See MPEP § 2173.05(d).

Claim 2, line 2- 'one or more optical elements' should read 'the one or more optical elements'

Claim 3, line 2- 'fresnel' should read 'Fresnel'

Claims 2-3, 14-24 are dependent on Claim 1, and hence inherit the deficiencies of Claim 1.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

11. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

12. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

13. Claims 1-3, 14-24 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one

Art Unit: 2872

skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 1 recites the limitation "...focal length varying means for addition, adjustment or removal of one or more elements in the optical path...". This limitation appears to be a means-plus-function limitation that invokes 35 U.S.C. 112, 6th paragraph. However, in reviewing the specification of the instant application, there does not appear to be any corresponding structure disclosed for performing the function of adding, adjusting, or removing one or more elements in the optical path. Similarly, Claim 2 recites the limitation "... means for moving one or more optical elements, into and out of the optical path", and Claim 3 recites the limitation "...means for moving a flat aspherical Fresnel lens into and out of the optical path". The disclosure of the instant application also appears to fail to adequately disclose any structural features that would perform these functional limitations. Claims 2-3, 14-24 are dependent on Claim 1, and hence inherit the deficiencies of Claim 1.

14. Claims 1-3, 14-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim elements "focal length varying means for addition, adjustment or removal of one or more elements in the optical path" (Claim 1), "means for moving one or more optical elements, into and out of the optical path" (Claim 2), and "means for moving a flat aspherical Fresnel lens into and out of the optical path" (Claim 3) are means (or step) plus function limitations that invokes 35 U.S.C. 112, sixth paragraph. However, the

Art Unit: 2872

written description fails to disclose the corresponding structure, material, or acts for the claimed functions. In reviewing the specification of the instant application, there does not appear to be any corresponding structure disclosed for performing the function of adding, adjusting, or removing one or more elements or the Fresnel lens in the optical path. It is not clear from the disclosure and figures of the instant application what Applicants intend the corresponding structures to be which perform the above functions. Claims 2-3, 14-24 are dependent on Claim 1, and hence inherit the deficiencies of Claim 1.

Applicant is required to:

- (a) Amend the claim so that the claim limitation will no longer be a means (or step) plus function limitation under 35 U.S.C. 112, sixth paragraph; or
- (b) Amend the written description of the specification such that it expressly recites what structure, material, or acts perform the claimed function without introducing any new matter (35 U.S.C. 132(a)).

If applicant is of the opinion that the written description of the specification already implicitly or inherently discloses the corresponding structure, material, or acts so that one of ordinary skill in the art would recognize what structure, material, or acts perform the claimed function, applicant is required to clarify the record by either:

- (a) Amending the written description of the specification such that it expressly recites the corresponding structure, material, or acts for performing the claimed function and clearly links or associates the structure, material, or acts to the claimed function, without introducing any new matter (35 U.S.C. 132(a)); or

Art Unit: 2872

(b) Stating on the record what the corresponding structure, material, or acts, which are implicitly or inherently set forth in the written description of the specification, perform the claimed function. For more information, see 37 CFR 1.75(d) and MPEP §§ 608.01(o) and 2181.

***Claim Rejections - 35 USC § 103***

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

17. Claims 1-3, 14-24, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over La Russa (U.S. Patent No. 6476944) in view of Lebby et al. (U.S. Patent No. 5539554), of record.



With respect to Claims 1-3, 14-15, 17-21, 23-24, La Russa discloses an image-forming system (See for example Figures 1-2, 4) comprising an object (See for example 20, 11 in Figure 2), and a multi-element magnifying optical path (See for example 12, 13, 14, 15, 16 in Figures 1-2). La Russa additionally discloses the object being light-emissive (See for example 20 in Figure 2); the object being arranged to emit polarized light (See light from 20 after passing through polarizer 11 in Figure 2); a polarizer is located between the object and the optical path (See for example 11 in Figure 2); the optical path comprises, in order, a curved beamsplitter or a holographic analogue of a curved beamsplitter (See for example 12 in Figure 2), a first quarter wave plate (See for example 13 in Figure 2), a planar beamsplitter (See for example 14 in Figure 2), a second quarter-wave plate (See for example 15 in Figure 2) and a linear polarizer (See for example 16 in Figure 2); and light emitted from the object is collimated (See Abstract; col. 1, line 61-col. 2, line 25).

La Russa does not explicitly disclose focal length varying means for addition, adjustment or removal of one or more elements in the optical path in order to vary the distance between a viewer's eye and the system, at which distance a magnified object is viewed, the focal length varying means comprising means for moving one or more optical elements, such as a flat aspherical Fresnel lens, into and out of the optical path. However, Lebby et al. teaches a conventional dual magnification imaging optical system (See for example Figures 4-5; col. 8, line 17-col. 9, line 37), wherein the conventional display system (See for example 70 in Figures 4-5) has two configurations. A first configuration (See 72 in Figure 4) provides a first large size image to the viewer. A

Art Unit: 2872

second configuration (See for example 74 in Figure 5) includes means (See for example 84, 85 in Figure 5) for adding an optical element into the optical path, thus providing a direct image view to the viewer. Further, Lebby et al. teaches that the optical element (See for example 84 in Figure 5) added into the optical path may be a Fresnel lens to aid in focusing and/or magnification (See for example col. 8, line 63-col. 9, line 8). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have the image-forming system of La Russa, further include focal length varying means for addition, adjustment or removal of one or more elements in the optical path in order to vary the distance between a viewer's eye and the system, at which distance a magnified object is viewed, the focal length varying means comprising means for moving one or more optical elements, such as a flat aspherical Fresnel lens, into and out of the optical path, as taught by Lebby et al., for the purpose of aiding in focusing and/or magnifying the image light from the display to the viewer, as required based on the intended application.

With respect to Claims 16 and 22, the combined teachings of La Russa and Lebby et al. teach the object being light-reflective (See for example Figures 1-2, 4-5).

### ***Conclusion***

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arnel C. Lavarias whose telephone number is 571-272-2315. The examiner can normally be reached on M-F 10:00 AM - 6:30 PM EST.

Art Unit: 2872

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephone B. Allen can be reached on 571-272-2434. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Arnel C. Lavarias  
Primary Examiner  
Group Art Unit 2872  
4/17/09

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